

Table 3-8a
Development of Risk-Based Concentrations for Non-Tidal Wetland Sediment
Salt Marsh Harvest Mouse
Investigation Area H1 Feasibility Study
Mare Island, Vallejo, California

$$RBC_{\text{sediment}} = BW \times TRV \times HQ / [(IR_{\text{prey}} \times BAF) + IR_{\text{sediment}}] \times SUF]$$

COEC ^a	Pickleweed Tissue BAF ^b	TRV (mg/kg BW-day)		RBC-Sediment (mg/kg)	
		Low	High	TRV-Low	TRV-High
Inorganics					
Aluminum	3.64E-03	1.93	19.3	228	2282
Antimony	2.95E+00	0.059	23.4	0.1	26
Arsenic	1.50E-01	0.32	4.7	6.0	88
Barium	5.56E-01	51.8	66	292	372
Cadmium	6.76E-01	0.06	2.64	0.3	12
Chromium	--	2.4	23.1	327	3145
Copper	1.82E-01	2.67	632	42	10036
Lead	7.92E-02	1	241	32	7635
Manganese	1.75E+00	13.7	159	25	293
Mercury	--	0.25	4	34	545
Nickel	1.14E-01	0.133	32	3.2	749
Selenium	--	0.05	1.21	6.8	165
Tin	6.21E+00	23.4	35	12	18
Vanadium	--	0.21	2.1	28.6	286
Zinc	3.77E-01	9.60	411	78	3354
Organics					
PCBs	2.72E+00	0.36	1.28	0.4	2
Anthracene	--	NTV	NTV	--	--
Benzo(a)anthracene	1.29E+00	NTV	NTV	--	--
Benzo(a)pyrene	2.31E+00	1.31	32.80	2	46
Benzo(b)fluoranthene	1.55E+00	NTV	NTV	--	--
Benzo(ghi)perylene	1.55E+00	NTV	NTV	--	--
Benzo(k)fluoranthene	1.55E+00	NTV	NTV	--	--
Chrysene	2.09E+00	NTV	NTV	--	--
Fluoranthene	--	NTV	NTV	--	--
Indeno(1,2,3cd)pyrene	3.17E+00	NTV	NTV	--	--
Phenanthrene	--	NTV	NTV	--	--
Pyrene	--	NTV	NTV	--	--

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Exposure Assumptions and Equation:^c

	Value	Units	
IRprey (dry wt.) =	0.00306	kg/day (dry weight)	-- = Not available
IRpickleweed (dry wt.) ^d =	0.00306	kg/day (dry weight)	NTV = No toxicity value
IRsediment (dry wt.) ^e =	0.00007344	kg-day (dry weight)	
Tissue Moisture (pickleweed) ^d =	82%	percent	
Site Use Factor ^f =	100%	percent	
Body Weight =	0.01	kg	
Hazard Quotient (HQ) =	1	unitless	

Notes:

- a - Constituent of ecological concern.
- b - Dry-weight basis pickleweed BAFs presented in Table 3-6b.
- c - Exposure parameters used to calculate risk are discussed in detail in the BERA.
- d - The wet weight tissue concentrations are converted to dry weight by dividing by 1 - tissue moisture.
- e - Ingestion rate of sediment based on 2.4 percent of the prey ingestion rate (dry weight); based on a meadow vole (Beyer et al.
- f - Site use factor was based on a conservative 100% use of the site for the harvest mouse's foraging range.